Test Build and Control (TBL) CSCI

Interface Description Document

Thor Release

84K00363

February 10, 1998

Prepared for:
National Aeronautics and Space Administration
Kennedy Space Center
KSC, Florida

1. INTRODUCTION

1.1 SCOPE

This document defines the data structures created and maintained by the Test Build and Control CSCI.

1.2 PURPOSE

The purpose of this document is to communicate the location, content and format of information provided by Test Build and Control to other CSCI's that use the information in processing data within the CLCS.

1.3 DOCUMENT ORGANIZATION

This document is organized into five sections as follow:

1. Section 1 - defines scope and purpose of the document.
2. Section 2 - identifies documentation related to this document.
3. Section 3 - defines the organization of the directories/files containing information.
4. Section 4 - describes the Test Build and Control database structures.
5. Section 5 - describes the Test Build and Control deliverable product files.

2. RELATED DOCUMENTATION

2.1 PARENT DOCUMENTATION

To be supplied.

2.2 REFERENCE DOCUMENTATION

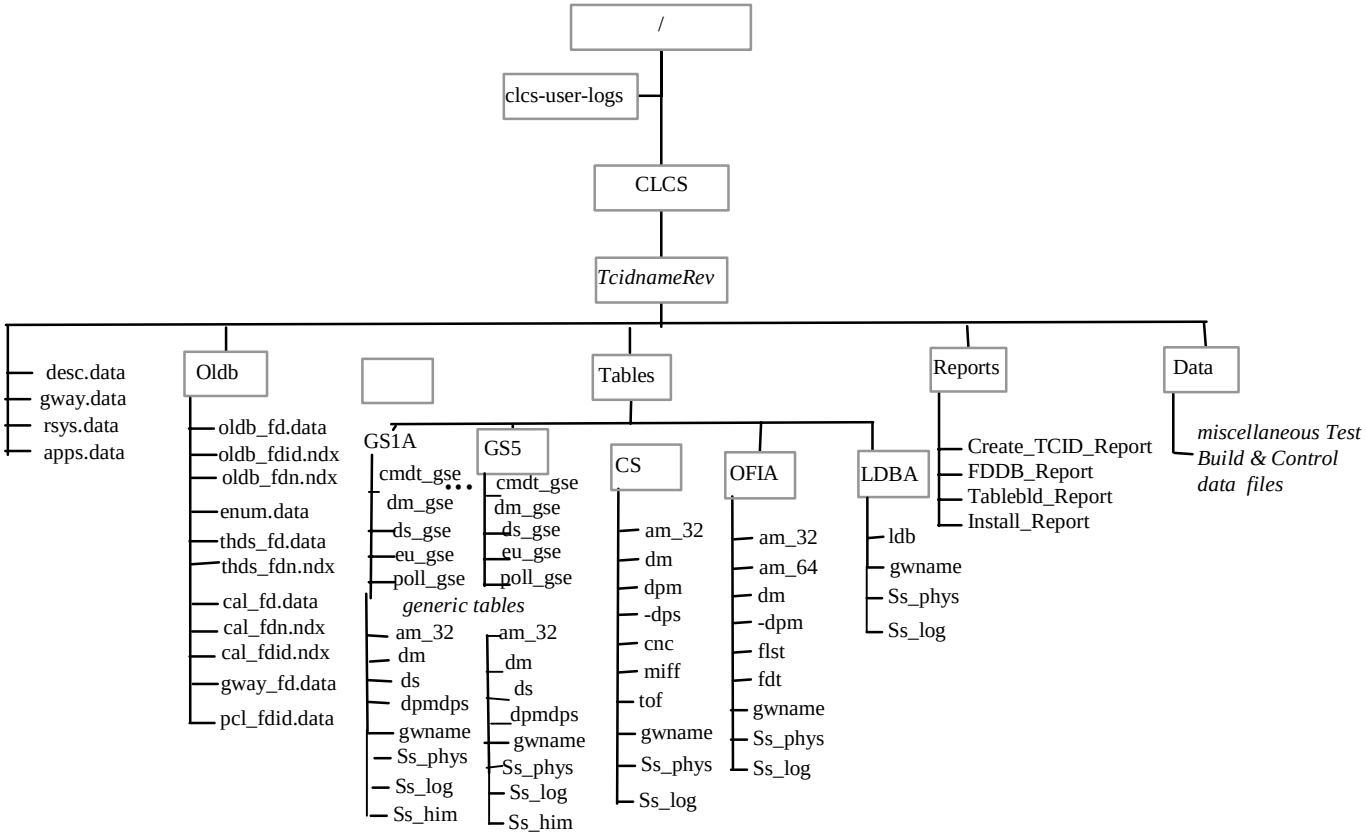
To be supplied.

3. DIRECTORY / FILE ORGANIZATION

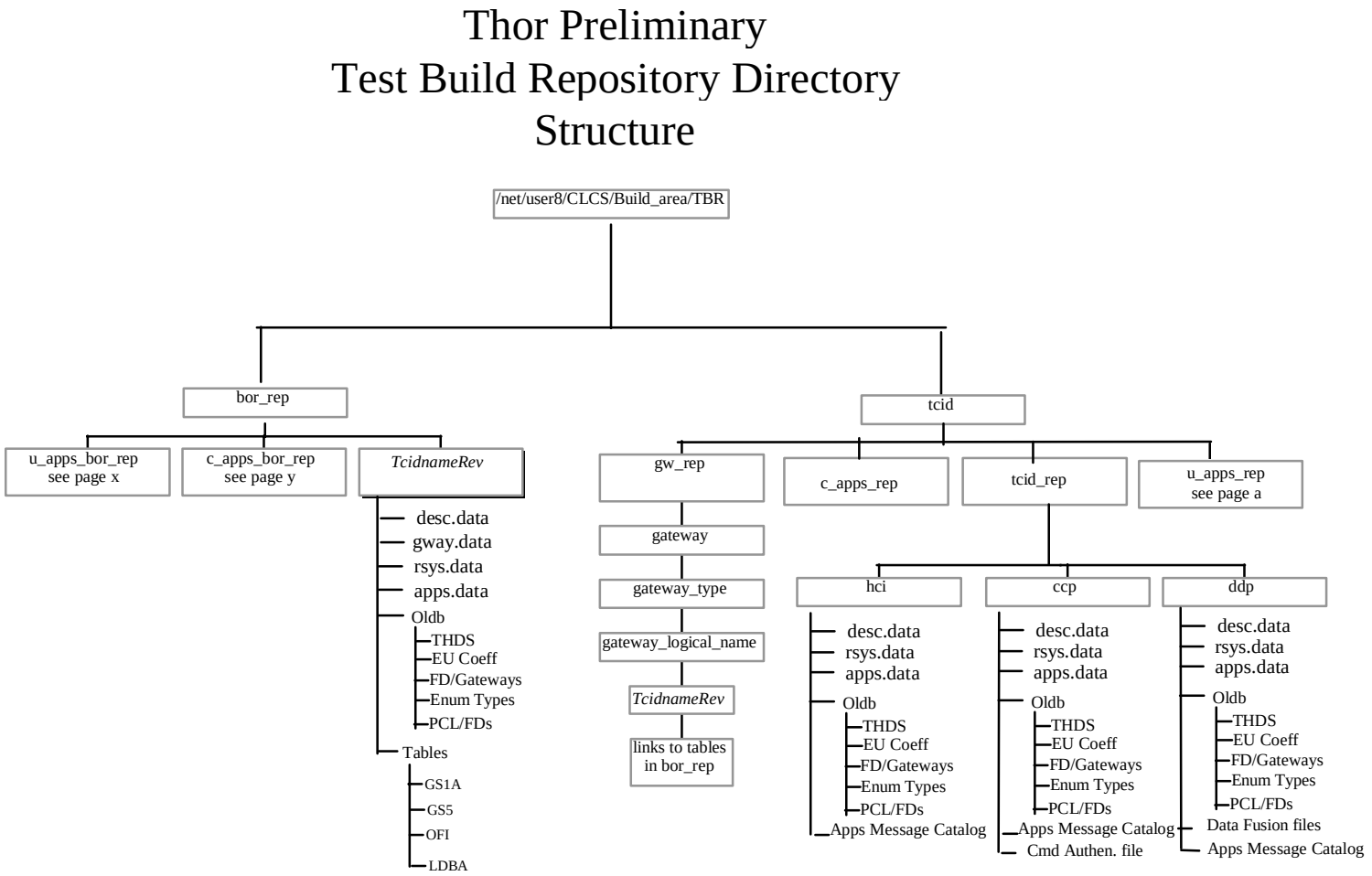
Section 3.1 illustrates the layout of the directories and files of the TCID structure used by Test Build and Control during the creation of the TCID products in the Shuttle Data Center (SDC). The Oldb, Tables, and Reports directories are copied in-tact to the CLCS Test Build Repository.

Section 3.2 illustrates the layout of TCID directories and files in the Test Build Repository on the AUSPEX File Server. Within the Test Build Repository are two major directories: the Build Objects Repository and the TCID Staging Area. Directories under the Build Objects Repository are provided for both uncertified and certified Application S/W files that TCID Install maps to a TCID structure in the TCID Staging Area.

3.1 SHUTTLE DATA CENTER

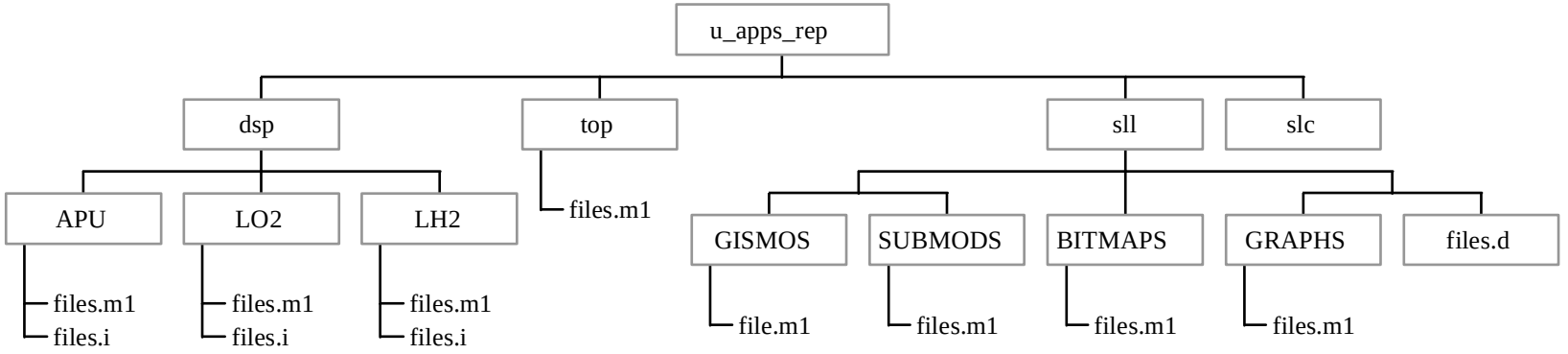


3.2 TEST BUILD REPOSITORY



Thor Preliminary
TCID Build Directory
Structure

u_apps_rep
page a

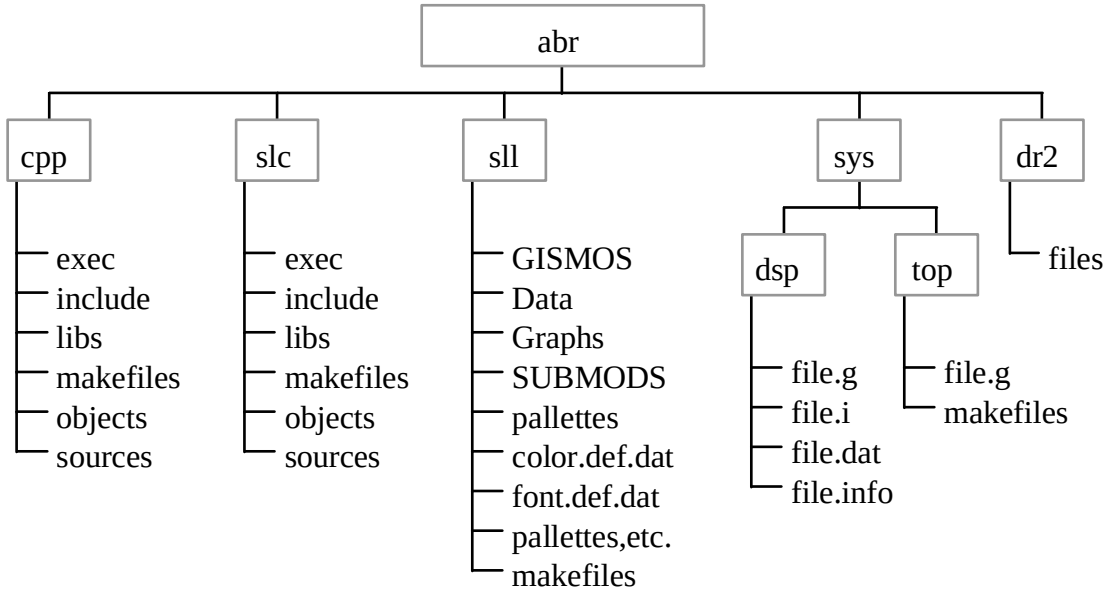


*** Note : This structure is preliminary and still in work. This addresses only the SL Displays. This will be updated as data gets more refined.

Thor Preliminary
TCID Build Directory
Structure

u_apps_bor_rep

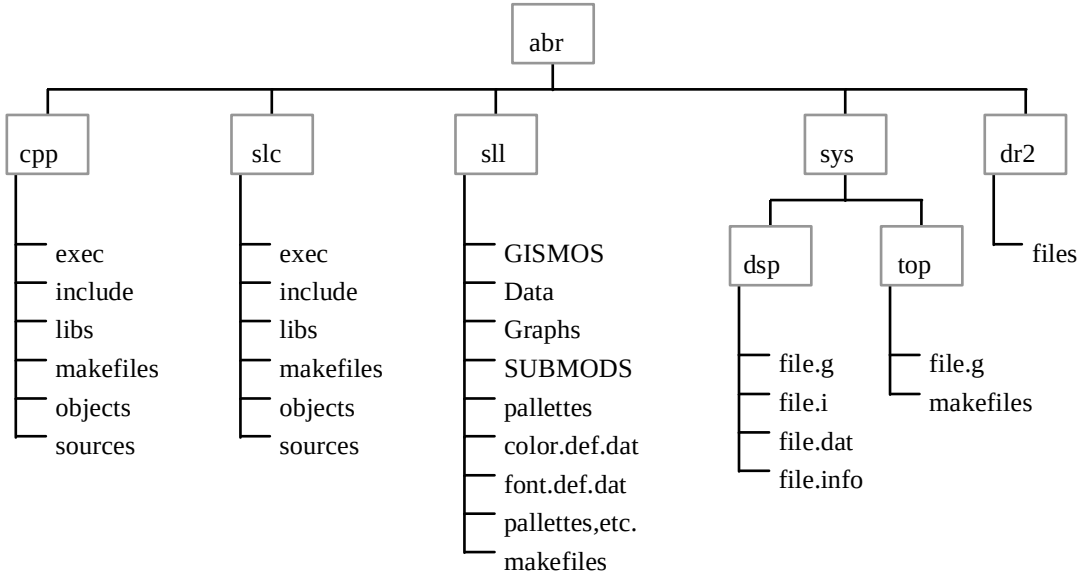
page x



*** Note : This structure is preliminary and still in work. This addresses only the SL Displays. This will be updated as data gets more refined.

Thor Preliminary
TCID Build Directory
Structure

c_apps_bor_rep
page y



*** Note : This structure is preliminary and still in work. This addresses only the SL displays. This will be updated as data gets more refined.

4. TEST BUILD AND CONTROL DATABASE STRUCTURES

Test Build and Control Database Structures include relational database tables and views required to build and deliver the command and control tables, and application software program files to a CLCS Set. The tables exist in the same database instance and table space. The descriptions that follow are grouped according to the class of information provided by each set of tables. All tables and views are created by the Create TCID function.

4.1 FUNCTION DESIGNATOR DIRECTORY TABLES

The Function Designator Directory Tables provide the subset of the DBSAFE Database FD's that represent the specific test configuration of the Space Shuttle vehicle and associated processing facilities. The FD Directory Tables are joined through database views to facilitate creation of the various tables/files required to support a TCID in a CLCS set. These tables/views provide the basis for the creation of the Gateway Processor tables, Online Database, and Data Recording/Archival and Retrieval support files.

4.1.1 Generic FD Data (GEN_FD)

The Generic FD table includes the elements of an FD that are common to all FD's regardless of data type or data source.

COLUMN NAME	DESCRIPTION	TYPE
FD_NAME	Function Designator Name	VARCHAR2(10) NOT NULL
RTCN_FDID	Realtime Control Network Function Designator Identifier	NUMBER(8,0) NOT NULL
NOMENCLATURE	FD Description	VARCHAR2(34)
VCN_NAME	Vehicle Configuration Name	VARCHAR2(6)
VCN_BASE_REV	VCN Baseline Revision	VARCHAR2(2) NOT NULL
VCN_MOD_REV	VCN Modification Revision	VARCHAR2(4) NOT NULL
GCE_REV	Generic Compiler Data Revision	NUMBER(6,0) NOT NULL
CREATE_DATE_CD	Generic Compiler Data Revision Date	DATE NOT NULL
LATEST_DB_REV_HD	Hardware Related Record Data Revision	NUMBER (10)
CREATE_DATE_HD	Hardware Related Record Data Revision Date	DATE NOT NULL
DB_USERID	Databank User ID	VARCHAR2(12)
TYPE	FD Data Type	VARCHAR2 (4) NOT NULL
TYPE_NUMBER	FD Data Type Number (required for compatibility with TCS Compiler)	NUMBER(2)
SUBTYPE	FD Data Subtype	VARCHAR2(3)
SUBTYPE_NUMBER	FD Subtype Number (required for compatibility with TCS Compiler)	NUMBER(2)
CONVERTED_TYPE	Converted FD Data Type	VARCHAR2(4)
ENG_UNIT	FD Engineering Unit	VARCHAR2(8)
UNIT_NUMBER	Engineering Unit Number (required for compatibility with TCS Compiler)	NUMBER(2)
SOURCE	Source of FD Data	VARCHAR2(6) NOT NULL
RSYS	Databank Responsible System	VARCHAR2(6) NOT NULL
TCID_RSYS	TCID Responsible System	VARCHAR2(6) NOT NULL
FD_LENGTH	Length of Raw Data Value	NUMBER (2,0)
CONVERTED_LENGTH	Length of Process Data Value	NUMBER(2,0)
ENUMERATED_CLASS_NUMBER	Enumerated Class Number	NUMBER(6,0)
CONTROL_LOGIC_IND	Control Logic Indicator (indicates if a CL Application is associated with the FD)	VARCHAR2(1)

Created by: Create TCID

Updated by: FD Directory Load, FD Directory Build

4.1.2 Analog FD Data (FD_COMMON_ANALOG)

For each analog type FD, the Analog FD Data table provides the linkage to the appropriate calibration curve data used in converting raw analog data values to engineering unit values. The low and high count values are the actual ranges of the raw data counts for the FD and may differ from the counts associated with the calibration curve data. The AMF constant is applicable only to analog FD's with subtype of AMF.

COLUMN NAME	DESCRIPTION	TYPE
RTCN_FDID	Realtime Control Network Function Designator Identifier	NUMBER(8,0) NOT NULL
CAL_ FD_NAME	Calibration FD Name (Primary Key to CAL_FD)	VARCHAR2(10) NOT NULL
LOW_COUNT	Low Count Limit of Raw Data	NUMBER(10,0)
HIGH_COUNT	High Count Limit of Raw Data	NUMBER(10,0)
AMF_CONSTANT	Analog Measurement Filtering Constant Used to Compute Engineering Values for ET OI point sensors.	NUMBER(6,6)

Created by: Create TCID
Updated by: FD Directory Load, FD Directory Build

4.1.3 Discrete FD Data (FD_COMMON_DISCRETE)

For each discrete type FD, the Discrete FD Data table provides the possible discrete state values associated the logical zero and logical one state of the FD.

COLUMN NAME	DESCRIPTION	TYPE
RTCN_FDID	Realtime Control Network Function Designator Identifier	NUMBER(8, 0) NOT NULL
STATE_0	Logical Zero State (e.g., "ON", "WET", "TRUE", etc.)	VARCHAR2(6)
STATE_1	Logical One State (e.g., "OFF", "DRY", "FALSE", etc.)	VARCHAR2(6)
STATE_CLASS_NUMBER	Number Indicating State Associations (required for compatibility with TCS Compiler)	NUMBER (2)

Created by: Create TCID
Updated by: FD Directory Load, FD Directory Build

4.1.4 GSE FD Data (FD_GSE)

The GSE FD Data Table provides the physical address information associated with a GSE FD. This information is needed to acquire data from or issue commands to a specific ground support equipment hardware device controlled by a GSE Gateway Processor via a Hardware Interface Module.

COLUMN NAME	DESCRIPTION	TYPE
RTCN_FDID	Realtime Control Network Function Designator Identifier	NUMBER(8,0) NOT NULL
LINK_IND	Data Link Indicator	VARCHAR2(2)
GSE_DATA_BUS	GSE Data Bus Identifier	VARCHAR2(6)
HIM	Hardware Interface Module	VARCHAR2(3)
HIM_REV	Hardware Interface Module Address Revision	VARCHAR2(2)
HIM_TYPE	Type of HIM (1 or 2)	VARCHAR2(1)
CARD_ADDRESS	Card Number	VARCHAR2(2)
CHANNEL	Channel Number	NUMBER(2,0)
FUNCTION_CODE	Function Code	NUMBER(3,0)
SAMPLE_RATE	Samples per Second	NUMBER(4,0)
GSE_TEST_FLAG	GSE Online Testing Indicator	VARCHAR2(1)
LPC_IND	Local Processor Controller HIM	VARCHAR2(1)
START_BIT	Starting Bit Location of Data Within Raw Data Word	NUMBER(2,0)
GATEWAY	Gateway Processor ID	VARCHAR2(4)

Created by: Create TCID
Updated by: FD Directory Load, FD Directory Build

4.1.5 MDM FD Data (FD_MDM)

The MDM FD Data Table provides the physical address information associated with a flight element FD. This information is needed to acquire data from or issue commands to a specific hardware component or software component of the vehicle configuration controlled by a Launch Data Bus or Uplink Gateway Processor via a Multiplexor/Demultiplexor or Bus Terminal Unit.

COLUMN NAME	DESCRIPTION	TYPE
RTCN_FDID	Realtime Control Network Function Designator Identifier	NUMBER(8,0) NOT NULL
LINK_IND	Data Link Indicator	VARCHAR2(2)
MDM	Multiplexor/Demultiplexor Identifier	VARCHAR2(3)
MDM_REV	MDM Address Revision	VARCHAR2(2)
BTU_NAME	Bus Terminal Unit Identifier	VARCHAR2(6)
BTU_CLASS	Bus Terminal Unit Class	VARCHAR2(3)
GPC_OP1_CRITICAL	General Purpose Computer Critical Command Indicator	VARCHAR2(1)
EIU_NUM	Engine Interface Unit Number (only valid for BTU Class of EIU)	NUMBER(1,0)
MULTIPORT_IND	Multiport Indicator (valid only with BTU Class of MEC)	VARCHAR2(1)
GPC_ROUTING_CODE	GPC Routing for Uplink Commands	VARCHAR2(4)
GPC_PORT	General Purpose Computer Primary Communications Port	NUMBER(2,0)
GPC_PORT_2	General Purpose Computer Communications Port 2	NUMBER(2,0)
GPC_PORT_3	General Purpose Computer Communications Port 3	NUMBER(2,0)
GPC_PORT_4	General Purpose Computer Communications Port 4	NUMBER(2,0)
BTU_ADDRESS	Bus Terminal Unit Address Number (Module Interface Address)	NUMBER(2,0)
CARD_ADDRESS	MDM Module Number (Convert from DBSAFE VARCHAR2)	NUMBER(2,0)
CHANNEL	MDM Channel Number	NUMBER(2,0)

MDM FD Data (FD_MDM) Continued

COLUMN NAME	DESCRIPTION	TYPE
OP_CODE	Operation Code (valid only for BTU's with subtypes of POI, P28, or P64, and for BTU class of PDI)	NUMBER(2,0)
A2_GPC_PORT	Secondary General Purpose Computer Communications Port for DUC Set/Reset Commands	NUMBER(2,0)
A2_BTU_ADDRESS	Secondary Bus Terminal Unit Address Number (Module Interface Address) for DUC Set/Reset Commands.	NUMBER(2,0)
A2_CARD_ADDRESS	Secondary MDM Module Number -valid only for type of DPSD, subtype TWO DUC Set/Reset Commands. (Convert from DBSAFE VARCHAR2)	NUMBER(2,0)
A2_CHANNEL	Secondary MDM Channel Number - valid only for type of DPSD, subtype TWO for DUC Set/Reset Commands.	NUMBER(2,0)
DATA_WORD1_SET_IND	Digital Pattern Stimulus with Data Word 1	NUMBER(1,0)
DATA_WORD1_VAL	Digital Pattern Stimulus with Data Word 1 Set /Reset	NUMBER(5,0)
DATA_WORD2_SET_IND	Digital Pattern Stimulus with Data Word 2	NUMBER(1,0)
DATA_WORD2_VAL	Digital Pattern Stimulus with Data Word 2 Set /Reset	NUMBER(5,0)
WORD_COUNT	Number of Data Words Received/Sent from/to the Device Associated with the FD	NUMBER(2,0)
WORD_NUM	Location of the FD in the Serial I/O Stream.	NUMBER(2,0)
START_BIT	Starting Bit Location of Data Within Raw Data Word	NUMBER(2,0)
GATEWAY	Gateway Processor ID	VARCHAR2(4)

Created by: Create TCID
Updated by: FD Directory Load, FD Directory Build

4.1.6 PCM FD Data (FD_PCM)

The PCM FD Data Table provides the telemetry address information associated with a flight element FD whose data are transmitted via a Pulse Code Modulated (PCM) telemetry stream. This information is needed to acquire data from both single format and multi-format telemetry streams.

COLUMN NAME	DESCRIPTION	TYPE
RTCN_FDID	Realtime Control Network Function Designator Identifier	NUMBER(8,0) NOT NULL
LINK_IND	Data Link Indicator	VARCHAR2(2)
FORMAT	PCM Downlist Format Identifier	VARCHAR2(3)
FMT	User Defined Format Identifier	VARCHAR2(3)
FMT_REV	User Defined Format Revision Number	VARCHAR2(2)
PARENT_WORD	Parent Word Source of Data	VARCHAR2(11)
DATA_SET__FD_NAME	Time Homogenous Data Set Name (valid only for PCM)	VARCHAR2(10)
SUBFRAME	Telemetry Frame Number in Which Minor Frame Occurs	NUMBER(3,0)
MINOR_FRAME	Minor Frame Number in Which Data Occurs	NUMBER(3,0)
CHANNEL	Minor Frame Word Position	NUMBER(4,0)
SAMPLES_PER_MAJOR_FRAME	Number of Samples per Major Frame	NUMBER(3,0)
EIU_NUM	Engine Interface Unit Number (used in bypassing MDT processing during Engine Controller memory dumps)	NUMBER(1,0)
LEAST_SIG_BIT_IND	Least Significant Bit Orientation	VARCHAR2(1)
START_BIT	Starting Bit Location of Data Within Raw Data Word	NUMBER(2,0)
GATEWAY	Gateway Processor ID	VARCHAR2(4)

Created by: Create TCID
Updated by: FD Directory Load, FD Directory Build

4.1.7 UCS FD Data (FD_UCS)

The UCS FD Data Table provides the remote terminal address information associated with Complex Control Set FD's whose data are acquired by a Utilities Control System (UCS) gateway.

COLUMN NAME	DESCRIPTION	TYPE
RTCN_FDID	Realtime Control Network Function Designator Identifier	NUMBER(8,0) NOT NULL
LINK_IND	Data Link Indicator	VARCHAR2(2)
FOUR_CB	UCS Four CB Identifier	VARCHAR2(2)
FOUR_CB_REV	UCS Four CB Revision	VARCHAR2(2)
STATION	Station Number	NUMBER(1,0)
CONTROLLER	Controller Number	NUMBER(2,0)
LINE	Line Number	NUMBER(2,0)
POINT	Point Number	NUMBER(2,0)
POLLING_POINT	Polling Indicator	VARCHAR2(1)
WORD_COUNT	Number of Data Words Received/Sent from/to the Device Associated with the FD	NUMBER(2,0)
WORD_NUM	Location of the FD in the I/O Stream.	NUMBER(2,0)
START_BIT	Starting Bit Location of Data Within Raw Data Word	NUMBER(2,0)
GATEWAY	Gateway Processor ID	VARCHAR2(4)

Created by: Create TCID
Updated by: FD Directory Load, FD Directory Build

4.1.8 System FD Data (FD_SYSTEM)

System FD's are generated by the FD Directory Build software to provide identification of the following types of information: Databank Responsible System, System Date, and TCID Name. These FD contain a minimal set of information.

COLUMN NAME	DESCRIPTION	TYPE
RTCN_FDID	Realtime Control Network Function Designator Identifier	NUMBER(8,0) NOT NULL
DATA_WORD_COUNT	Number of Data Words Applicable	NUMBER(1,0)
DATA_WORD1	Data Word 1	NUMBER(3,0)
DATA_WORD2	Data Word 2	NUMBER(3,0)
DATA_WORD3	Data Word 3	NUMBER(3,0)

Created by: Create TCID
Updated by: FD Directory Load, FD Directory Build

4.1.9 Calibration FD Data (CAL_FD)

Calibration FD's provide the information required to convert raw analog counts to an associated engineering unit. Information is also provided to support boundary value tests for both count and engineering units.

COLUMN NAME	DESCRIPTION	TYPE
CAL_ FD_NAME	Calibration FD Name	VARCHAR2(10) NOT NULL
GATEWAY	Gateway Processor ID	VARCHAR2(4)
VALID_SUBTYPE	Analog Subtype	VARCHAR2(3)
LOW_RANGE	Low Range Limit of Engineering Unit Value	NUMBER(11,6)
HIGH_RANGE	High Range Limit of Engineering Unit Value	NUMBER(11,6)
LOW_COUNT	Low Count Limit of Raw Data	NUMBER(10)
HIGH_COUNT	High Count Limit of Raw Data	NUMBER(10)
VALID_LENGTH	Length of Raw Data Value	NUMBER(2,0)
VALID_CONVERTED_LENGTH	Length of Processed Data Value	NUMBER(2,0)
M_SCALING	Slope	NUMBER
B_SCALING	Intercept	NUMBER
CURVE_DEGREE	Degree of Polynomial	NUMBER(1)
A0	A0 Coefficient	VARCHAR2(14)
A1	A1 Coefficient	VARCHAR2(14)
A2	A2 Coefficient	VARCHAR2(14)
A3	A3 Coefficient	VARCHAR2(14)
A4	A4 Coefficient	VARCHAR2(14)
A5	A5 Coefficient	VARCHAR2(14)

Created by: Create TCID
Updated by: FD Directory Build

4.1.10 FD Enumerated Types Table (FD_ENUMERATED_TYPES)

The FD Enumerated Types Table provides the association of an enumerated type class to the possible enumerated values.

COLUMN NAME	DESCRIPTION	TYPE
ENUMERATED_CLASS_NUMBER	Enumerated Class Number	NUMBER(6) NOT NULL
ENUMERATED_CLASS	Enumerated Class Identifier	VARCHAR2(20) NOT NULL
ELEMENT	Element Value Description	VARCHAR2(60) NOT NULL
ELEMENT_VALUE	Element Value	NUMBER(20,0) NOT NULL

Created by: Create TCID
Updated by: FD Directory Build

4.1.11 Online Database View (OLDB_FD)

The Online Database View provides a consolidated view of FD information by joining the various FD Directory tables. This view is used by the TCID Install function to build the Online Database files.

COLUMN NAME	SOURCE TABLE	TYPE
FD_NAME	GEN_FD	VARCHAR2(10)
NOMENCLATURE	GEN_FD	VARCHAR2(34)
SOURCE	GEN_FD	VARCHAR2(6)
TYPE	GEN_FD	VARCHAR2(4)
SUBTYPE	GEN_FD	VARCHAR2(3)
CONVERTED_TYPE	GEN_FD	VARCHAR2(4)
ENG_UNIT	GEN_FD	VARCHAR2(8)
GATEWAY	FD_GSE, FD_MDM, FD_PCM, FD_UCS	VARCHAR2(4)
RSYS	GEN_FD	VARCHAR2(6)
TCID_RSYS	GEN_FD	VARCHAR2(6)
DATA_SET_FD_NAME	FD_PCM	VARCHAR2(10)
STATE _0	FD_COMMON_DISCRETE	VARCHAR2(6)
CONTROL_LOGIC_IND	GEN_FD	VARCHAR2(1)
START_BIT	FD_GSE, FD_MDM, FD_PCM, FD_UCS	NUMBER
FD_LENGTH	GEN_FD	NUMBER
CONVERTED_LENGTH	GEN_FD	NUMBER
ENUMERATED_CLASS_NUMBER	GEN_FD	NUMBER
LOW_COUNT	FD_COMMON_ANALOG	NUMBER
HIGH_COUNT	FD_COMMON_ANALOG	NUMBER
LOW_RANGE	CAL_FD	NUMBER
HIGH_RANGE	CAL_FD	NUMBER
RTCN_FDID	GEN_FD	NUMBER

Created by: Create TCID

4.1.12 Data Analysis and Presentation View (DAP_FD)

The Data Analysis and Presentation View provides a consolidated view of FD information required for the build of the Application Processing (AP) File by joining the various FD Directory tables. This view is used by the AP File Build function to build AP File.

COLUMN NAME	SOURCE TABLE	TYPE
FD_NAME	GEN_FD	VARCHAR2(10)
NOMENCLATURE	GEN_FD	VARCHAR2(34)
TYPE	GEN_FD	VARCHAR2(4)
SUBTYPE	GEN_FD	VARCHAR2(3)
ENG_UNIT	GEN_FD	VARCHAR2(8)
TCID_RSYS	GEN_FD	VARCHAR2(6)
STATE _0	FD_COMMON_DISCRETE	VARCHAR2(6)
STATE_1	FD_COMMON_DISCRETE	VARCHAR2(6)
START_BIT	FD_GSE, FD_MDM, FD_PCM, FD_UCS	NUMBER
CONVERTED_LENGTH	GEN_FD	NUMBER
HIGH_RANGE	FD_COMMON_ANALOG	NUMBER
LOW_RANGE	FD_COMMON_ANALOG	NUMBER
SAMPLE_RATE	FD_GSE	NUMBER
RTCN_FDID	GEN_FD	NUMBER

Created by: Create TCID

4.1.13 Simulation View (SIM_FD)

The Simulation View provides a consolidated view of FD information required for the build of the SIM Databank File by joining various FD Directory tables. This view is used by the SIM Build function to build a Databank File.

NOTE: Content is TBD

COLUMN NAME	SOURCE TABLE	TYPE
RTCN_FDID	GEN_FD	NUMBER

Created by: Create TCID

4.2 LOAD CONFIGURATION TABLES

The Load Configuration Tables provide information regarding Gateway processors and Application Software to be installed as part of the TCID.

4.2.1 TCID Description Table (TCID_DES)

The TCID Description Table provides descriptive information about revision levels of the TCID and associated tables and files. This table is used to determine what data is available and to determine what processes of the TCID build have been completed.

COLUMN NAME	DESCRIPTION	TYPE
TCID_NAME	Unique TCID Identifier	VARCHAR2(20) NOT NULL
TCID_REV	Revision of TCID (Initially zero)	NUMBER(3,0) NOT NULL
CDS_TCID	Name of CDS TCID from which FD data was obtained.	VARCHAR2(12)
CTRL_ROOM_TYPE	Type of Control Room Supported	VARCHAR2(25)
BUILD_SW_VERSION	Test Build S/W Version	VARCHAR2(8)
FD_DIR_REVISION	FD Directory Revision	NUMBER(3,0)
FD_DIR_REV_DATE	FD Directory Revision Date	DATE
GWAY_TBLS_REV	Tables Directory Revision	NUMBER(3,0)
GWAY_TBLS_REV_DATE	Tables Directory Revision Date	DATE
INSTALL_REV	Installation Revision	NUMBER(3,0)
INSTALL_REV_DATE	Installation Revision Date	DATE
SCID_SW_VERSION	Compatible System S/W Version	VARCHAR2(72)

Created by: Create TCID
Updated by: Create TCID, FD Directory Load, FD Directory Build, Gateway Table Build, TCID Install

4.2.2 Application Software Definition Data (APP_SW_DEF)

The Application Software Definition table defines the responsible system relationships of all application program files (application programs, DDVT files, health and fusion algorithms, etc.) required to perform command, control and monitor functions in a CLCS set for a specific TCID.

COLUMN NAME	DESCRIPTION	TYPE
TCID_NAME	Unique TCID Identifier	VARCHAR2(20) NOT NULL
TCID_REV	Revision of TCID (Initially zero)	NUMBER(3,0) NOT NULL
TCID_RSYS	TCID Responsible System Name	VARCHAR2(6) NOT NULL
PROGRAM_INDEX	Application Program Index Number	NUMBER(8)
PROGRAM_FILE_TYPE	Application Program Type	VARCHAR2(8) NOT NULL
PROGRAM_NAME	Application Program Name	VARCHAR2(256) NOT NULL
PROGRAM_REV	Application Program Revision	VARCHAR2(20) NOT NULL
PROGRAM_SIZE	Application Program Size	NUMBER(8)

Created by: Create TCID
Updated by: Installation

4.2.3 Gateway Definition Data (GATEWAY_DEF)

The Gateway Definition table identifies all of the Gateway Processors for which process control tables have been generated for a specific TCID.

COLUMN NAME	DESCRIPTION	TYPE
TCID_NAME	Unique TCID Identifier	VARCHAR2(20) NOT NULL
TCID_REV	Revision of TCID (Initially zero)	NUMBER(3,0) NOT NULL
GATEWAY	Name of Gateway Processor	VARCHAR2(4) NOT NULL
GWAY_TBLS_PRESENT	Table Name Associated with Gateway	VARCHAR2(8) NOT NULL

Created by: Create TCID
Updated by: Gateway Table Build

5. TEST BUILD AND CONTROL PRODUCT FILES

For Thor, Test Build and Control product files will contain data in ASCII format only. This eliminates the need for Test Build and Control software to perform endian conversions of non-character data (integers, floating points, bit masks) to the native endian of the target platforms. Conversion of non-character data elements from ASCII to the intended data type are the responsibility of the target platform software.

The following tables describe the various Test Build and Control product files. The Record Number column identifies specific records in the file/table. The Item Number column identifies the particular fields within the record. The Item Description column describes the particular item/field. The Type column reflects the type of data (e.g., integer, floating point, etc.). The Format column indicates the actual format of the item in the file (always "character" for Thor). The Size column reflects the width in bytes of the field in the file. All items/fields are delimited by blanks and all records are terminated with a newline.

5.1 ONLINE DATABASE FILES

The Online Database Files provide Function Designator information and associated indices for locating FD information either by Function Designator name or Function Designator ID.

For Thor, support has been added to associate measurement/command FD's with their responsible Gateways and with their responsible Time Homogeneous Data Set FD's and Calibration FD's (when applicable).

5.1.1 Online Database FD Data File

FILE: oldb_fd.data, Online Database File of FD information.

CONTENT: Multiple records of FD information arranged in ascending FD name order. Each item is delimited by a blank. Each record is delimited by a newline character (\n). **NOTE**: Spare words 1-3 are reserved for future use.

Record No.	Item No.	Item Description	Type	Format	Size
1-N	1	Function Designator Name	string	character	10
	2	Nomenclature	string	character	34
	3	Data Source (e.g., GSE, PCM)	string	character	6
	4	Data Type	string	character	4
	5	Data Subtype	string	character	3
	6	Engineering Units	string	character	8
	7	Gateway Processor ID	string	character	4
	8	Databank Responsible System	string	character	6
	9	TCID Responsible System	string	character	6
	10	Time Homogeneous Data Set Name	string	character	10
	11	Logical Zero State	string	character	6
	12	Starting Bit Position	integer	character	2
	13	Converted Data Length	integer	character	2
	14	Low Count Limit	integer	character	10
	15	High Count Limit	integer	character	10
	16	Floating Point Low Engineering Value Limit	float	character	13
	17	Floating Point High Engineering Value Limit	float	character	13
	18	Converted Type	string	character	4
	19	Source Data Length	integer	character	2
	20	Enumerated Class Number	integer	character	6
	21	Control Logic Indicator ("Y" or "N")	string	character	1
	22	Spare 1 ("-spare-1-")	tbd	character	9
	23	Spare 2 ("-spare-2-")	tbd	character	9
	24	Spare 3 ("--spare-3-")	tbd	character	10
	25	Realtime Control Network FDID (RTCN FDID)	integer	character	8

5.1.2 Online Database FDID Index File

FILE: oldb_fdid.ndx, Online Database FDID Index File.

CONTENT: Multiple records consisting of information useful in locating an FD record in the FD data file by FDID. Records are sorted in ascending FDID order. Each item is delimited by a blank. Each record is delimited by a newline character.

Record No.	Item No.	Item Description	Type	Format	Size
1-N	1	RTCN FDID	integer	character	8
	2	Byte Offset From Beginning of oldb_fd.data File To FD Record	integer	character	10

5.1.3 Online Database FD Name Index File

FILE: oldb_fdn.ndx, Online Database FD Name Index File.

CONTENT: Multiple records consisting of information useful in locating an FD record in the FD data file by FD name. Records are sorted in ascending FD Name order. Each item is delimited by a blank. Each record is delimited by a newline character.

Record No.	Item No.	Item Description	Type	Format	Size
1-N	1	FD Name	string	character	10
	2	Byte Offset From Beginning of oldb_fd.data File To FD Record	integer	character	10

5.1.4 Enumerated Types File

FILE: enum.data, Online Database Enumerated Types File.

CONTENT: Multiple records consisting of information useful in correlating the data value of an enumerated class of an FD to its associated description . Records are sorted in ascending THDS FD name order. Each item is delimited by a blank. Each record is delimited by a newline character.

Record No.	Item No.	Item Description	Type	Format	Size
1-N	1	Enumerated Class Number	integer	character	6
	2	Element Value	integer	character	20
	3	Element Description	string	character	60

5.1.5 Time Homogeneous Data Set File

FILE: thds_fd.data, Online Database Time Homogeneous Data Set (THDS) File.

CONTENT: Multiple records consisting of information useful in correlating a THDS FD to its member FDs. Records are sorted in ascending THDS FD name order. Each item is delimited by a blank. Each record is delimited by a newline character.

Record No.	Item No.	Item Description	Type	Format	Size
1-N	1	THDS FD Name	string	character	10
	2	Member FD Name	string	character	10
	3	Member RTCN_FDID	integer	character	8

5.1.6 Time Homogeneous Data Set Name Index File

FILE: thds_fdn.ndx, Online Database Time Homogeneous Data Set (THDS) Name Index File.

CONTENT: Multiple records consisting of information useful in locating a THDS FD and associated member FDs. Records are sorted in ascending THDS FD name order. Each item is delimited by a blank. Each record is delimited by a newline character.

Record No.	Item No.	Item Description	Type	Format	Size
1-N	1	THDS FD Name	string	character	10
	2	Byte Offset From Beginning of thds_fd.data File to THDS_FD Record	integer	character	10
	3	Number of Member FD's	integer	character	4

5.1.7 Calibration FD Data File

FILE: cal_fd.data, Online Database Calibration FD Data File.

CONTENT: Multiple records of Calibration FD information useful in converting processed data values into engineering units. Records are sorted in ascending Calibration FD name order. Each item is delimited by a blank. Each record is delimited by a newline character.

Record No.	Item No.	Item Description	Type	Format	Size
1-N	1	Calibration FD Name	string	character	10
	2	Scientific Notation of A0 Coefficient	float	character	14
	3	Scientific Notation of A1 Coefficient	float	character	14
	4	Scientific Notation of A2 Coefficient	float	character	14
	5	Scientific Notation of A3 Coefficient	float	character	14
	6	Scientific Notation of A4 Coefficient	float	character	14
	7	Scientific Notation of A5 Coefficient	float	character	14

5.1.8 Calibration FD Name Index File

FILE: cal_fdn.ndx, Online Database Calibration FD Name Index File.

CONTENT: Multiple records consisting of information useful in locating the calibration data associated with an FD Name. Records are sorted in ascending FD name order. Each item is delimited by a blank. Each record is delimited by a newline character.

Record No.	Item No.	Item Description	Type	Format	Size
1-N	1	FD Name	string	character	10
	2	Calibration FD Name	string	character	10
	3	Byte Offset to Calibration FD Record From Beginning of Calibration FD File	integer	character	10

5.1.9 Calibration FDID Index File

FILE: cal_fdid.ndx, Online Database Calibration FDID Index File.

CONTENT: Multiple records consisting of information useful in locating the calibration data associated with an RTCN FDID. Records are sorted in ascending RTCN FDID order. Each item is delimited by a blank. Each record is delimited by a newline character.

Record No.	Item No.	Item Description	Type	Format	Size
1-N	1	RTCN FDID	integer	character	8
	2	Calibration FD Name	string	character	10
	3	Byte Offset to Calibration FD Record From Beginning of Calibration FD File	integer	character	10

5.1.10 Gateway to FD File

FILE: gway_fd.data, Online Database Gateway to FD File.

CONTENT: Multiple records consisting of information useful in identifying which FD's are associated with which Gateways. Records are sorted in ascending Gateway order. Each item is delimited by a blank. Each record is delimited by a newline character.

Record No.	Item No.	Item Description	Type	Format	Size
1-N	1	Gateway ID	string	character	4
	2	FD Name	string	character	10
	3	RTCN FDID	string	character	8

5.1.11 Prerequisite Control Logic to FID File

FILE: pcl_fdid.data, Prerequisite Control Logic to FDID File.

CONTENT: Multiple records consisting of information useful in identifying which FD's are associated with which Prerequisite Control Logic applications. Records are sorted in ascending FD name order. Each item is delimited by a blank. Each record is delimited by a newline character.

Record No.	Item No.	Item Description	Type	Format	Size
1-N	1	RTCN FDID	integer	character	8
	2	Prerequisite Control Logic Application Name	string	character	10

5.2 GSE GATEWAY TABLES FILES

The GSE Gateway Tables Files provide the process control tables required by the GSE Gateways.

5.2.1 Command/Measurement Description Table File

FILE: cmdt_gse, Command/Measurement Description Table File.

CONTENT: Multiple records of information for each HIM channel that may be either commanded or polled. Each item is delimited by a blank. Each record is delimited by a newline character. Details on the usage/meaning of the various record items are described in the GSE Gateway Services Table Load and Initialization Design Specification.

Record No.	Item No.	Item Description	Type	Format	Size
1	1	Number of Command/Measurement Description Table Records	integer	character	8
2-N	1	Hexadecimal Type Number: 1=AM 2=AS 3=DM 4=DS 5=DPM 6=DPS	integer	character	2
	2	Hexadecimal Subtype Number: 1=AU for AM, AS 1=BD for DM, DS 1=DEC for DPM, DPS 2=OCT for DPM, DPS 3=HEX for DPM, DPS 4=BIN for DPM, DPS 7=BCD for DPM, DPS	integer	character	2
	3	Hexadecimal HIM Address	integer	character	4
	4	Hexadecimal HIM Channel	integer	character	4
	5	Hexadecimal Enable Mask	integer	character	4
	6	Hexadecimal Index Value (usage varies according to data type)	integer	character	4
	7	Hexadecimal RTCN FDID	integer	character	8
	8	Hexadecimal Default Sample Rate: 0 = not in default poll table 1 = 100 Hz 2 = 10 Hz 3 = 1 Hz	integer	character	4

5.2.2 Discrete Stimulus FDID Table File

FILE: ds_gse, Discrete Stimulus FDID Table.

CONTENT: Multiple records of FDID's, one for each discrete stimulus channel (4 discretes per channel). Each item is separated by a blank. Each record is delimited by a newline character. Details on the usage/meaning of the various record items are described in the GSE Gateway Services Table Load and Initialization Design Specification.

Record No.	Item No.	Item Description	Type	Format	Size
1	1	Number of Discrete Stimulus Table Records	integer	character	8
2-N	1	Hexadecimal FDID of Least Significant Discrete Bit	integer	character	4
	2	Hexadecimal FDID of Next Discrete Bit	integer	character	4
	3	Hexadecimal FDID of Next Discrete Bit	integer	character	4
	4	Hexadecimal FDID Associated of Most Significant Discrete Bit	integer	character	4

5.2.3 Discrete Measurement FDID Table File

FILE: dm_gse, Discrete Measurement FDID Table.

CONTENT: Multiple records of FDID's, one for each discrete measurement channel (8 discretes per channel). Each record item is separated by a blank. Each record is delimited by a newline character. Details on the usage/meaning of the various record items are described in the GSE Gateway Services Table Load and Initialization Design Specification.

Record No.	Item No.	Item Description	Type	Format	Size
1	1	Number of Discrete Measurement Table Records	integer	character	8
2-N	1	Hexadecimal FDID of Least Significant Discrete Bit	integer	character	4
	2	Hexadecimal FDID of Next Discrete Bit	integer	character	4
	3	Hexadecimal FDID of Next Discrete Bit	integer	character	4
	4	Hexadecimal FDID of Next Discrete Bit	integer	character	4
	5	Hexadecimal FDID of Next Discrete Bit	integer	character	4
	6	Hexadecimal FDID of Next Discrete Bit	integer	character	4
	7	Hexadecimal FDID of Next Discrete	integer	character	4
	8	Hexadecimal FDID Associated of Most Significant Discrete Bit	integer	character	4

5.2.4 GSE Engineering Unit Conversion Table File

FILE: eu_gse, GSE Engineering Unit Conversion Table.

CONTENT: Multiple records of calibration coefficients pointed to from the GSE CMDT table. Each item is separated by a blank. Each record is delimited by a newline character. Details on the usage/meaning of the various record items are described in the GSE Gateway Service1s Table Load and Initialization Design Specification.

Record No.	Item No.	Item Description	Type	Format	Size
1	1	Number of Engineering Unit Conversion Table Records	integer	character	8
2-N	1	Scientific Notation of A0 Coefficient	float	character	14
	2	Scientific Notation of A1 Coefficient	float	character	14
	3	Scientific Notation of A2 Coefficient	float	character	14
	4	Scientific Notation of A3 Coefficient	float	character	14
	5	Scientific Notation of A4 Coefficient	float	character	14
	6	Scientific Notation of A5 Coefficient	float	character	14

5.2.5 Polling Table File

FILE: poll_gse, Polling Table.

CONTENT: Multiple records of polling rate information grouped by 100Hz, 10Hz and 1Hz sample rates. Each record item is separated by a blank. Each record is delimited by a newline character. Details on the usage/meaning of the various record items are described in the GSE Gateway Services Table Load and Initialization Design Specification.

Record No.	Item No.	Item Description	Type	Format	Size
1	1	Number of 100 Hz Polling Table Records (Always =100)	integer	character	3
2-101	1	Slot Type 0=Poll Measurement 1=Output Command 2=No Operation 3=Search next lower rate table	integer	character	8
	2	Hexadecimal CMDT Index	integer	character	8
102	1	Number of 10 Hz Polling Table Records (Must be multiple of 10)	integer	character	3
103-M	1	Slot Type 0=Poll Measurement 1=Output Command 2=No Operation 3=Search next lower rate table	integer	character	8
	2	Hexadecimal CMDT Index	integer	character	8
M+1	1	Number of 1 Hz Polling Table Records (Must be multiple of 10)	integer	character	3
M-N	2	Slot Type 0=Poll Measurement 1=Output Command 2=No Operation	integer	character	8
	3	Hexadecimal CMDT Index	integer	character	8

5.3 GSE GENERIC GATEWAY TABLES FILES

The GSE Generic Gateway Tables Files provide a set of generalized process control tables required by the GSE Gateways.

5.3.1 32-Bit Analog Measurement/Stimulus Description Table File

FILE: am_32, 32-Bit Analog Measurement Description Table File.

CONTENT: Multiple records of information for each analog measurement/stimulus FD. Each item is delimited by a blank. Each record is delimited by a newline character. Details on the usage/meaning of the various record items are described in the GSE Gateway Services Table Load and Initialization Design Specification.

Record No.	Item No.	Item Description	Type	Format	Size
1	1	Number of Command/Measurement Description Table Records	integer	character	8
2-N	1	Hexadecimal Processing Flag : Bit 1: Processing Enable Bit 2: Significant Change Bit 3-16: Spare	integer	character	2
	2	Hexadecimal RTCN FDID	integer	character	8
	3	Hexadecimal Data Type	integer	character	2
	4	Hexadecimal Data Subtype	integer	character	2
	5	Hexadecimal Start Bit	integer	character	2
	6	Hexadecimal FD Length	integer	character	2
	7	Scientific Notation of A0 Coefficient	float	character	14
	8	Scientific Notation of A1 Coefficient	float	character	14
	9	Scientific Notation of A2 Coefficient	float	character	14
	10	Scientific Notation of A3 Coefficient	float	character	14
	11	Scientific Notation of A4 Coefficient	float	character	14
	12	Scientific Notation of A5 Coefficient	float	character	14
	13	Hexadecimal Spare (“00000000”)	integer	character	8

5.3.2 Discrete Measurement Description Table File

FILE: dm, Discrete Measurement Description Table File.

CONTENT: Multiple records of information used by the GSE Gateway to process individual discrete measurement FD's. Each record item is separated by a blank. Each record is delimited by a newline character.

Record No.	Item No.	Item Description	Type	Format	Size
1	1	Decimal Number of Records in Table	integer	character	tbd
2-N	1	Hexadecimal Processing Flag: Bit 1: Processing Enable Bit 2: Significant Change Bit 3-16: Spare	integer	character	4
	2	Hexadecimal Data Type	integer	character	2
	3	Hexadecimal Data Subtype	integer	character	2
	4	Hexadecimal RTCN FDID 1	integer	character	8
	5	Hexadecimal RTCN FDID 2	integer	character	8
	6	Hexadecimal RTCN FDID 3	integer	character	8
	7	Hexadecimal RTCN FDID 4	integer	character	8
	8	Hexadecimal RTCN FDID 5	integer	character	8
	9	Hexadecimal RTCN FDID 6	integer	character	8
	10	Hexadecimal RTCN FDID 7	integer	character	8
	11	Hexadecimal RTCN FDID 8	integer	character	8
	12	Hexadecimal Spare ("00000000")	integer	character	8

5.3.3 Discrete Stimulus Description Table File

FILE: ds, Discrete Stimulus Description Table File.

CONTENT: Multiple records of information used by the GSE Gateway to process individual discrete stimulus FD's. Each record item is separated by a blank. Each record is delimited by a newline character.

Record No.	Item No.	Item Description	Type	Format	Size
1	1	Decimal Number of Records in Table	integer	character	tbd
2-N	1	Hexadecimal Processing Flag: Bit 1: Processing Enable Bit 2: Significant Change Bit 3-16: Spare	integer	character	4
	2	Hexadecimal Data Type	integer	character	2
	3	Hexadecimal Data Subtype	integer	character	2
	4	Hexadecimal RTCN FDID 1	integer	character	8
	5	Hexadecimal RTCN FDID 2	integer	character	8
	6	Hexadecimal RTCN FDID 3	integer	character	8
	7	Hexadecimal RTCN FDID 4	integer	character	8
	8	Hexadecimal Spare ("00000000")	integer	character	8

5.3.4 Digital Pattern Measurement/Stimulus Description Table File

FILE: dpmdps, Digital Pattern Measurement/Stimulus Description Table File.

CONTENT: Multiple records of information used by the GSE Gateway to process digital pattern measurement and stimulus FD's. Each record item is separated by a blank. Each record is delimited by a newline character.

Record No.	Item No.	Item Description	Type	Format	Size
1	1	Decimal Number of Records in Table	integer	character	tbd
2-N	1	Hexadecimal Processing Flag: Bit 1: Processing Enable Bit 2: Significant Change Bit 3-16: Spare	integer	character	4
	2	Hexadecimal RTCN FDID	integer	character	8
	3	Hexadecimal Data Type	integer	character	2
	4	Hexadecimal Data Subtype	integer	character	2
	5	Hexadecimal Start Bit	integer	character	2
	6	Hexadecimal FD Length	integer	character	2

5.3.5 Gateway Name File

FILE: gwname, Gateway Name File.

CONTENT: Two records of information used to identify the Gateway and identities of Local Process Controller (LPC) Hardware Interface Modules (HIM's). Each record item is separated by a blank. Each record is delimited by a newline character. Details on the usage/meaning of the various record items are described in the GSE Gateway Services Table Load and Initialization Design Specification.

Record No.	Item No.	Item Description	Type	Format	Size
1	1	Gateway Name	string	character	4
2	1	"LPC"	string	character	3
	2-N	Octal HIM Number	integer	character	3

5.3.6 System Status Physical File

FILE: ss_phys

CONTENT: Multiple records of FDID's relating to the FDs used by subsystem integrity which are generated relating to the physical gateway. Each record contains the FD suffix (currently defined as the 6^{th} through 10^{th} characters of the FD Name) and the FDID's relating to all physical gateways of this type.

Record No.	Item No.	Item Description	Type	Format	Size
1	1	FD suffix	string	character	5
	2	Hexadecimal FDID (first physical address)	integer	character	8
	2-N	Hexadecimal remaining FDID's	integer	character	8
2	1	FD suffix	string	character	5
	2	Hexadecimal FDID (first physical address)	integer	character	8
	2-N	Hexadecimal remaining FDID's	integer	character	8
3-N	1	FD suffix (remaining physical FDs in the TCID)	string	character	5
	2	Hexadecimal FDID (first physical address)	integer	character	8
	2-N	Hexadecimal remaining FDID's	integer	character	8

5.3.7 System Status Logical File

FILE: ss_log

CONTENT: Multiple records of FD Names and FDID's used by subsystem integrity which are generated relating to the logical gateway. Each record contains the FD Name and the FDID for the logical System Status FDs in the TCID.

Record No.	Item No.	Item Description	Type	Format	Size
1-N	1	FD Name	string	character	10
	2	Hexadecimal FDID	integer	character	8

5.3.8 System Status HIM File

FILE: ss_him

CONTENT: Multiple records of FD Names and FDID's used by subsystem integrity which are generated relating to the HIM Status. Each record contains the FD Name and the FDID for the HIM System Status FDs in the TCID.

Record No.	Item No.	Item Description	Type	Format	Size
1-N	1	FD Name	string	character	10
	2	Hexadecimal FDID	integer	character	8

5.4 PCM GATEWAY TABLES FILES

The PCM Gateway Tables Files provide the tables required by the PCM Gateways to acquire PCM telemetry data and process it into CLCS formats.

5.4.1 32-Bit Analog Measurement Description Table File

FILE: am_32, 32-Bit Analog Measurement Description Table File.

CONTENT: Multiple records of information used by the PCM Gateway to convert 32-bit analog measurement FD's into their computed engineering units. Each record item is separated by a blank. Each record is delimited by a newline character.

Record No.	Item No.	Item Description	Type	Format	Size
1	1	Decimal Number of Records in Table	integer	character	tbd
2-N	1	Hexadecimal Processing Flag : Bit 1: Processing Enable Bit 2: Significant Change Bit 3: Refresh Request Bit 4: First THDS Member Bit 5: THDS Member Bit 6: Last THDS Member Bit 7-16: Spare	integer		4
	2	Hexadecimal RTCN FDID	integer	character	8
	3	Hexadecimal Data Type	integer	character	2
	4	Hexadecimal Data Subtype	integer	character	2
	5	Hexadecimal Start Bit	integer	character	2
	6	Hexadecimal FD Length	integer	character	2
	7	Scientific Notation of A0 Coefficient	float	character	14
	8	Scientific Notation of A1 Coefficient	float	character	14
	9	Scientific Notation of A2 Coefficient	float	character	14
	10	Scientific Notation of A3 Coefficient	float	character	14
	11	Scientific Notation of A4 Coefficient	float	character	14
	12	Scientific Notation of A5 Coefficient	float	character	14
	13	Hexadecimal THDS FDID	integer	character	8

5.4.2 64-Bit Analog Measurement Description Table File

FILE: am_64, 64-Bit Analog Measurement Description Table File.

CONTENT: Multiple records of information used by the PCM Gateway to convert 64-bit analog measurement FD's into their computed engineering units. Each record item is separated by a blank. Each record is delimited by a newline character.

Record No.	Item No.	Item Description	Type	Format	Size
1	1	Decimal Number of Records in Table	integer	character	tbd
2-N	1	Hexadecimal Processing Flag : Bit 1: Processing Enable Bit 2: Significant Change Bit 3: Refresh Request Bit 4: First THDS Member Bit 5: THDS Member Bit 6: Last THDS Member Bit 7-16: Spare	integer		4
	2	Hexadecimal RTCN_FDID	integer	character	8
	3	Hexadecimal Data Type	integer	character	2
	4	Hexadecimal Data Subtype	integer	character	2
	5	Hexadecimal Start Bit	integer	character	2
	6	Hexadecimal FD Length	integer	character	2
	7	Hexadecimal THDS FDID	integer	character	8

5.4.3 Discrete Measurement Description Table File

FILE: dm, Discrete Measurement Description Table File.

CONTENT: Multiple records of information used by the PCM Gateway to process individual discrete measurement FD's. Each record item is separated by a blank. Each record is delimited by a newline character.

Record No.	Item No.	Item Description	Type	Format	Size
1	1	Decimal Number of Records in Table	integer	character	tbd
2-N	1	Hexadecimal Processing Flag: Bit 1: Processing Enable Bit 2: Significant Change Bit 3: Refresh Request Bit 4: First THDS Member Bit 5: THDS Member Bit 6: Last THDS Member Bit 7-16: Spare	integer	character	4
	2	Hexadecimal Parent Word FDID	integer	character	8
	3	Hexadecimal Data Type	integer	character	2
	4	Hexadecimal Data Subtype	integer	character	2
	5	Hexadecimal RTCN FDID 1	integer	character	8
	6	Hexadecimal RTCN FDID 2	integer	character	8
	7	Hexadecimal RTCN FDID 3	integer	character	8
	8	Hexadecimal RTCN FDID 4	integer	character	8
	9	Hexadecimal RTCN FDID 5	integer	character	8
	10	Hexadecimal RTCN FDID 6	integer	character	8
	11	Hexadecimal RTCN FDID 7	integer	character	8
	12	Hexadecimal RTCN FDID 8	integer	character	8
	13	Hexadecimal RTCN FDID 9	integer	character	8
	14	Hexadecimal RTCN FDID 10	integer	character	8
	15	Hexadecimal RTCN FDID 11	integer	character	8
	16	Hexadecimal RTCN FDID 12	integer	character	8
	17	Hexadecimal RTCN FDID 13	integer	character	8
	18	Hexadecimal RTCN FDID 14	integer	character	8
	19	Hexadecimal RTCN FDID 15	integer	character	8
	20	Hexadecimal RTCN FDID 16	integer	character	8
	21	Hexadecimal THDS FDID	integer	character	8

5.4.4 Digital Pattern Measurement Description Table File

FILE: dpm_mwdp, Digital Pattern Measurement Description Table File.

CONTENT: Multiple records of information used by the PCM Gateway to process digital pattern measurement FD's. Each record item is separated by a blank. Each record is delimited by a newline character.

Record No.	Item No.	Item Description	Type	Format	Size
1	1	Decimal Number of Records in Table	integer	character	tbd
2-N	1	Hexadecimal Processing flag: Bit 1: Processing Enable Bit 2: Significant Change Bit 3: Refresh Request Bit 4: First THDS Member Bit 5: THDS Member Bit 6: Last THDS Member Bit 7-16: Spare	integer	character	4
	4	Hexadecimal RTCN FDID	integer	character	8
	2	Hexadecimal Data Type	integer	character	2
	3	Hexadecimal Data Subtype	integer	character	2
	5	Hexadecimal Start Bit	integer	character	2
	6	Hexadecimal FD Length	integer	character	2
	7	Hexadecimal THDS FDID	integer	character	8

5.4.5 Format List Table File

FILE: flst_tab, Format List Table File.

CONTENT: Multiple records of information used by the PCM Gateway to identify various PCM telemetry formats. Each record item is separated by a blank. Each record is delimited by a newline character.

Record No.	Item No.	Item Description	Type	Format	Size
1	1	Decimal Number of Formats Lists	integer	character	tbd
2	1	Decimal Number of Fields in All Format Lists	integer	character	8
3	1	Decimal Format ID Number	integer	character	8
4	1	Decimal Number of Fields in Current Format List	integer	character	8
5	1	Decimal Number of Lines in Current Format List	integer	character	8
6-N	1	Hexadecimal Subframe Number	integer	character	4
	2	Hexadecimal Minor Frame Number	integer	character	4
	3	Hexadecimal Channel Number	integer	character	4
	4	Hexadecimal Start Bit	integer	character	4
	5	Hexadecimal FD Length	integer	character	4
	6	Hexadecimal Samples per Major Frame	integer	character	4
	7	Hexadecimal RTCN FDID	integer	character	8
		NOTE: Repeat Records 3-N for all formats			

5.4.6 Format Description Table File

FILE: fdt_tab, Format Description Table File.

CONTENT: The fdt includes two sub-tables: a Format Information Table (fit) and an Area Telemetry Description Table (atdt). The fit sub-table provides a variable number of records describing the organization of subframes and minor frames within a telemetry format. The atdt sub-table provides a variable number of records describing the telemetry areas associated a telemetry format. Each record item is separated by a blank. Each record is delimited by a newline character.

Record No.	Item No.	Item Description	Type	Format	Size
1	1	Decimal Number of Format Information Table Records	integer	character	tbd
2-M	1	Hexadecimal Format Flags/ID: Bit 1: Spare Bits 2-4: Format type Bit 5: Data size Bit 6: Low data rate Bit 7: High data rate Bit 8: Type II/VI data Bit 9-16: Format ID	integer	character	4
	2	Hexadecimal Subframe Start Value	integer	character	4
	3	Hexadecimal Subframes per Major Frame	integer	character	4
	4	Hexadecimal Subframe Increment Value	integer	character	4
	5	Hexadecimal Minor Frame Start Value	integer	character	4
	6	Hexadecimal Minor Frames per Subframe	integer	character	4
	7	Hexadecimal Minor Frame Increment Value	integer	character	4
	8	Hexadecimal Channel Start Value	integer	character	4
	9	Hexadecimal Format Bit Rate	integer	character	8
	10	Hexadecimal Major Frame Period (secs)	float	character	8
		NOTE: Repeat Items 2-10 for each Format Flag			
M+1	1	Decimal Number of ATDT Records in Table	integer	character	tbd
M+2-N	1	ATDT Format ID	integer	character	8
	2	Hexadecimal Area 0 Bandwidth: Bit 1: Spare Bit 2-4: Format type Bit 5: Data size Bit 6-8: Spare Bit 9-16: Bandwidth size	integer	character	8
	3	Hexadecimal Area 1 Bandwidth	integer	character	8
	4	Hexadecimal Area 2 Bandwidth	integer	character	8
	5	Hexadecimal Area 3 Bandwidth	integer	character	8
	6	Hexadecimal Area 4 Bandwidth	integer	character	8
	7	Hexadecimal Area 5 Bandwidth	integer	character	8
	8	Hexadecimal Area 6 Bandwidth	integer	character	8
	9	Hexadecimal Area 7 Bandwidth	integer	character	8

Format Description Table File (continued)

Record No.	Item No.	Item Description	Type	Format	Size
	10	Hexadecimal Decom 1 Area Number	integer	character	8
	11	Hexadecimal Decom 2 Area Number	integer	character	8
	12	Hexadecimal Decom 3 Area Number	integer	character	8
	13	Hexadecimal Decom 4 Area Number	integer	character	8
	14	Hexadecimal Sync Word 1	integer	character	8
	15	Hexadecimal Sync Word 2	integer	character	8
	16	Hexadecimal Sync Mask 1	integer	character	8
	17	Hexadecimal Sync Mask 2	integer	character	8
	18	Hexadecimal Frame Length	integer	character	8
	19	Hexadecimal Word Length	integer	character	8
	20	Hexadecimal Allowable Bit Sync in Error Rate	integer	character	8
	21	Hexadecimal PCM Telemetry Type	integer	character	8
	22	Hexadecimal Loop Select	integer	character	8
	23	Hexadecimal Source Select	integer	character	8
	24	Hexadecimal Polarity Select	integer	character	8
	25	Hexadecimal Rate Select	integer	character	8
	26	Hexadecimal Bit Rate	integer	character	8
		NOTE: Repeat Items 2-26 for Each ATDT Format ID.			

5.4.7 Gateway Name File

FILE: gwname, Gateway Name File.

CONTENT: One record of information used to identify the Gateway. Each record is delimited by a newline character.

Record No.	Item No.	Item Description	Type	Format	Size
1	1	Gateway Name (e.g., “OFIA”)	string	character	4

5.4.8 System Status Physical File

FILE: ss_phys

CONTENT: Multiple records of FDID’s relating to the FDs used by subsystem integrity which are generated relating to the physical gateway. Each record contains the FD suffix (currently defined as the 6^{th} through 10^{th} characters of the FD Name) and the FDID’s relating to all physical gateways of this type.

Record No.	Item No.	Item Description	Type	Format	Size
1	1	FD suffix	string	character	5
	2	Hexadecimal FDID (first physical address)	integer	character	8
	2-N	Hexadecimal remaining FDID’s	integer	character	8
2	1	FD suffix	string	character	5
	2	Hexadecimal FDID (first physical address)	integer	character	8
	2-N	Hexadecimal remaining FDID’s	integer	character	8
3-N	1	FD suffix (remaining physical FDs in the TCID)	string	character	5
	2	Hexadecimal FDID (first physical address)	integer	character	8
	2-N	Hexadecimal remaining FDID’s	integer	character	8

5.4.9 System Status Logical File

FILE: ss_log

CONTENT: Multiple records of FD Names and FDID's used by subsystem integrity which are generated relating to the logical gateway. Each record contains the FD Name and the FDID for the logical System Status FDs in the TCID.

Record No.	Item No.	Item Description	Type	Format	Size
1-N	1	FD Name	string	character	10
	2	Hexadecimal FDID	integer	character	8

5.5 LDB GATEWAY TABLES FILE

The LDB Gateway Tables File provides the table required by the LDB Gateway to send, receive, and process stimulus and measurement FD data from CLCS to/from on-board systems via the Launch Data Bus.

5.5.1 Launch Data Bus Command/Measurement Description Table File

FILE: ldb, Launch Data Bus Command/Measurement Description Table File.

CONTENT: Multiple records of information used by the LDB Gateway to transmit/receive/evaluate commands/measurements to/from on-board systems (e.g., MDM's, EIU's, etc.). Each record item is separated by a blank. Each record is delimited by a newline character.

Record No.	Item No.	Item Description	Type	Format	Size
1	1	Decimal Number of Records in Table	integer	character	tbd
2-N	1	Hexadecimal RTCN FDID	integer	character	8
	2	Hexadecimal Type	integer	character	4
	3	Hexadecimal Subtype	integer	character	4
	4	Hexadecimal Raw Data Length	integer	character	4
	5	Hexadecimal Start Bit	integer	character	4
	6	Hexadecimal Shift Count	integer	character	4
	7	Hexadecimal Bus Select	integer	character	4
	8	Hexadecimal BTU Class	integer	character	4
	9	Hexadecimal GPC Port1	integer	character	4
	10	Hexadecimal GPC Port2	integer	character	4
	11	Hexadecimal GPC Port3	integer	character	4
	12	Hexadecimal GPC Port4	integer	character	4
	13	Hexadecimal Secondary GPC Port1	integer	character	4
	14	Hexadecimal EIU Number	integer	character	4
	15	Hexadecimal Mode	integer	character	4
	16	Hexadecimal PCM/PDI/BTU Primary Address	integer	character	4
	17	Hexadecimal PCM/PDI/BTU Secondary Address	integer	character	4
	188	Hexadecimal Opcode	integer	character	4
	19	Hexadecimal Primary Module Address	integer	character	4
	20	Hexadecimal Secondary Module Address	integer	character	4
	21	Hexadecimal Primary Channel Address	integer	character	4
	22	Hexadecimal Secondary Channel Address	integer	character	4
	23	Hexadecimal Serial I/O Word Count	integer	character	4
	24	Hexadecimal Serial I/O Word Number	integer	character	4
	25	Hexadecimal Mask (for Digital Pattern Measurements only)	integer	character	4
	26	Hexadecimal Set Mask (first word) for DS or First Word of DPSD	integer	character	4
	27	Hexadecimal Set Mask (Second word) for DS or First Word of DPSD	integer	character	4
	28	Hexadecimal Reset Mask (first word) for DS	integer	character	4
	29	Hexadecimal Reset Mask (first word) for DS	integer	character	4
	30	Hexadecimal GPC Critical Command Indicator	string	character	1
	31	Hexadecimal Multi-Port Indicator (valid only with BTU Class of MEC)	string	character	1
	32	Hexadecimal Activate/Inhibit Indicator	integer	character	4

Launch Data Bus Command/Measurement Description Table File (continued)

Record No.	Item No.	Item Description	Type	Format	Size
	33	Scientific Notation of A0 Coefficient	float	character	14
	34	Scientific Notation of A1 Coefficient	float	character	14
	35	Scientific Notation of A2 Coefficient	float	character	14
	36	Scientific Notation of A3 Coefficient	float	character	14
	37	Scientific Notation of A4 Coefficient	float	character	14
	38	Scientific Notation of A5 Coefficient	float	character	14
	39	FD Name	string	character	10
	40	Nomenclature	string	character	34

5.5.2 Gateway Name File

FILE: gwname, Gateway Name File.

CONTENT: One record of information used to identify the Gateway. Each record is delimited by a newline character.

Record No.	Item No.	Item Description	Type	Format	Size
1	1	Gateway Name (e.g., “LDBA”)	string	character	4

5.5.3 System Status Physical File

FILE: ss_phys

CONTENT: Multiple records of FDID’s relating to the FDs used by subsystem integrity which are generated relating to the physical gateway. Each record contains the FD suffix (currently defined as the 6^{th} through 10^{th} characters of the FD Name) and the FDID’s relating to all physical gateways of this type.

Record No.	Item No.	Item Description	Type	Format	Size
1	1	FD suffix	string	character	5
	2	Hexadecimal FDID (first physical address)	integer	character	8
	2-N	Hexadecimal remaining FDID’s	integer	character	8
2	1	FD suffix	string	character	5
	2	Hexadecimal FDID (first physical address)	integer	character	8
	2-N	Hexadecimal remaining FDID’s	integer	character	8
3-N	1	FD suffix (remaining physical FDs in the TCID)	string	character	5
	2	Hexadecimal FDID (first physical address)	integer	character	8
	2-N	Hexadecimal remaining FDID’s	integer	character	8

5.5.4 System Status Logical File

FILE: ss_log

CONTENT: Multiple records of FD Names and FDID’s used by subsystem integrity which are generated relating to the logical gateway. Each record contains the FD Name and the FDID for the logical System Status FDs in the TCID.

Record No.	Item No.	Item Description	Type	Format	Size
1-N	1	FD Name	string	character	10
	2	Hexadecimal FDID	integer	character	8

5.6 CS GATEWAY TABLES FILES

The CS Gateway Tables Files provide the tables required by the CS Gateway to acquire HTD telemetry data and process it into CLCS formats.

5.6.1 32-Bit Analog Measurement Description Table File

FILE: am_32, 32-Bit Analog Measurement Description Table File.

CONTENT: Multiple records of information used by the CS Gateway to convert 32-bit analog measurement FD's into their computed engineering units. Each record item is separated by a blank. Each record is delimited by a newline character.

Record No.	Item No.	Item Description	Type	Format	Size
1	1	Decimal Number of Records in Table	integer	character	tbd
2-N	1	Hexadecimal Processing Flag : Bit 1: Processing Enable Bit 2: Significant Change Bit 3: Refresh Request Bit 4: First THDS Member Bit 5: THDS Member Bit 6: Last THDS Member Bit 7-16: Spare	integer		4
	2	Hexadecimal RTCN FDID	integer	character	8
	3	Hexadecimal Data Type	integer	character	2
	4	Hexadecimal Data Subtype	integer	character	2
	5	Hexadecimal Start Bit	integer	character	2
	6	Hexadecimal FD Length	integer	character	2
	7	Scientific Notation of A0 Coefficient	float	character	14
	8	Scientific Notation of A1 Coefficient	float	character	14
	9	Scientific Notation of A2 Coefficient	float	character	14
	10	Scientific Notation of A3 Coefficient	float	character	14
	11	Scientific Notation of A4 Coefficient	float	character	14
	12	Scientific Notation of A5 Coefficient	float	character	14
	13	Hexadecimal THDS FDID	integer	character	8

5.6.2 64-Bit Analog Measurement Description Table File

FILE: am_64, 64-Bit Analog Measurement Description Table File.

CONTENT: Multiple records of information used by the CS Gateway to convert64-bit analog measurement FD's into their computed engineering units. Each record item is separated by a blank. Each record is delimited by a newline character.

Record No.	Item No.	Item Description	Type	Format	Size
1	1	Decimal Number of Records in Table	integer	character	tbd
2-N	1	Hexadecimal Processing Flag : Bit 1: Processing Enable Bit 2: Significant Change Bit 3: Refresh Request Bit 4: First THDS Member Bit 5: THDS Member Bit 6: Last THDS Member Bit 7-16: Spare	integer		4
	2	Hexadecimal RTCN FDID	integer	character	8
	3	Hexadecimal Data Type	integer	character	2
	4	Hexadecimal Data Subtype	integer	character	2
	5	Hexadecimal Start Bit	integer	character	2
	6	Hexadecimal FD Length	integer	character	2
	7	Scientific Notation of A0 Coefficient	float	character	14
	8	Scientific Notation of A1 Coefficient	float	character	14
	9	Scientific Notation of A2 Coefficient	float	character	14
	10	Scientific Notation of A3 Coefficient	float	character	14
	11	Scientific Notation of A4 Coefficient	float	character	14
	12	Scientific Notation of A5 Coefficient	float	character	14
	13	Hexadecimal THDS FDID	integer	character	8

5.6.3 Discrete Measurement Description Table File

FILE: dm, Discrete Measurement Description Table File.

CONTENT: Multiple records of information used by the CS Gateway to process individual discrete measurement FD's. Each record item is separated by a blank. Each record is delimited by a newline character.

Record No.	Item No.	Item Description	Type	Format	Size
1	1	Decimal Number of Records in Table	integer	character	tbd
2-N	1	Hexadecimal Processing Flag: Bit 1: Processing Enable Bit 2: Significant Change Bit 3: Refresh Request Bit 4: First THDS Member Bit 5: THDS Member Bit 6: Last THDS Member Bit 7-16: Spare	integer	character	4
	2	Hexadecimal Parent Word FDID	integer	character	8
	3	Hexadecimal Data Type	integer	character	2
	4	Hexadecimal Data Subtype	integer	character	2
	5	Hexadecimal RTCN FDID 1	integer	character	8
	6	Hexadecimal RTCN FDID 2	integer	character	8
	7	Hexadecimal RTCN FDID 3	integer	character	8
	8	Hexadecimal RTCN FDID 4	integer	character	8
	9	Hexadecimal RTCN FDID 5	integer	character	8
	10	Hexadecimal RTCN FDID 6	integer	character	8
	11	Hexadecimal RTCN FDID 7	integer	character	8
	12	Hexadecimal RTCN FDID 8	integer	character	8
	13	Hexadecimal RTCN FDID 9	integer	character	8
	14	Hexadecimal RTCN FDID 10	integer	character	8
	15	Hexadecimal RTCN FDID 11	integer	character	8
	16	Hexadecimal RTCN FDID 12	integer	character	8
	17	Hexadecimal RTCN FDID 13	integer	character	8
	18	Hexadecimal RTCN FDID 14	integer	character	8
	19	Hexadecimal RTCN FDID 15	integer	character	8
	20	Hexadecimal RTCN FDID 16	integer	character	8
	21	Hexadecimal THDS FDID	integer	character	8

5.6.4 Digital Pattern Measurement Description Table File

FILE: dpm, Digital Pattern Measurement Description Table File.

CONTENT: Multiple records of information used by the CS Gateway to process digital pattern measurement FD's. Each record item is separated by a blank. Each record is delimited by a newline character.

Record No.	Item No.	Item Description	Type	Format	Size
1	1	Decimal Number of Records in Table	integer	character	tbd
2-N	1	Hexadecimal Processing flag: Bit 1: Processing Enable Bit 2: Significant Change Bit 3: Refresh Request Bit 4: First THDS Member Bit 5: THDS Member Bit 6: Last THDS Member Bit 7-16: Spare	integer	character	4
	4	Hexadecimal RTCN FDID	integer	character	8
	2	Hexadecimal Data Type	integer	character	2
	3	Hexadecimal Data Subtype	integer	character	2
	5	Hexadecimal Start Bit	integer	character	2
	6	Hexadecimal FD Length	integer	character	2
	7	Hexadecimal THDS FDID	integer	character	8

5.6.5 Digital Pattern Stimulus Description Table File

FILE: dps, Digital Pattern Stimulus Description Table File.

CONTENT: Multiple records of information used by the CS Gateway to process digital pattern stimulus FD's. Each record item is separated by a blank. Each record is delimited by a newline character.

Record No.	Item No.	Item Description	Type	Format	Size
1	1	Decimal Number of Records in Table	integer	character	tbd
2-N	1	Hexadecimal Processing flag: Bit 1: Processing Enable Bit 2: Significant Change Bit 3: Refresh Request Bit 4: First THDS Member Bit 5: THDS Member Bit 6: Last THDS Member Bit 7-16: Spare	integer	character	4
	4	Hexadecimal RTCN FDID	integer	character	8
	2	Hexadecimal Data Type	integer	character	2
	3	Hexadecimal Data Subtype	integer	character	2
	5	Hexadecimal Start Bit	integer	character	2
	6	Hexadecimal FD Length	integer	character	2
	7	Hexadecimal THDS FDID	integer	character	8

5.6.6 Multi-word Digital Pattern Measurement Description Table File

FILE: mwdp, Multi-word Digital Pattern Measurement Description Table File.

CONTENT: Multiple records of information used by the CS Gateway to process multi-word digital pattern measurement FD's. Each record item is separated by a blank. Each record is delimited by a newline character.

Record No.	Item No.	Item Description	Type	Format	Size
1	1	Decimal Number of Records in Table	integer	character	tbd
2-N	1	Hexadecimal Processing flag: Bit 1: Processing Enable Bit 2: Significant Change Bit 3: Refresh Request Bit 4: First THDS Member Bit 5: THDS Member Bit 6: Last THDS Member Bit 7-16: Spare	integer	character	4
	4	Hexadecimal RTCN FDID	integer	character	8
	2	Hexadecimal Data Type	integer	character	2
	3	Hexadecimal Data Subtype	integer	character	2
	5	Hexadecimal Start Bit	integer	character	2
	6	Hexadecimal FD Length	integer	character	2
	7	Hexadecimal THDS FDID	integer	character	8

5.6.7 Consolidated System Tables File

FILE: cstables

CONTENT: Multiple records of information used by the CS Gateway to identify which tables have been built for this Gateway. Each record contains the filename of the tables built.

Record No.	Item No.	Item Description	Type	Format	Size
1	1	filename (e.g. MIFF1)	string	character	tbd
2	1	filename (e.g. TOF1)	string	character	tbd
3	1	filename (e.g. CNC)	string	character	tbd
4 - N	1	filenames	string	character	tbd

5.6.8 Measurement Interface Frame Table

FILE: MIFFxx, where xx corresponds to the format number

CONTENT: The contains the information necessary for the CS Gateway to decom to HTD format. There will be one of these files for each format built. Records 2 through 8 are fixed records for FDs (V76M8004P, V76M8023P, V76M8024P, V76M8025P, V76M8026P, V76M8027P, V76M8028P) - these FDs do not have corresponding entries in the TOF.

Record No.	Item No.	Item Description	Type	Format	Size
1	1	Decimal Number of Format Information Table Records	integer	character	tbd
2	1	FDID (hexadecimal with preceeding 0X)	integer	character	8
	2	FD Name	string	character	10
	3	Byte Offset	integer	character	4
	4	Length in bytes	integer	character	4
3 - N	1	FDID	integer	character	8
	2	FD Name	string	character	10
	3	Byte Offset	integer	character	4
	4	Length in bytes	integer	character	4

5.6.9 Time Offset Frame Table

FILE: TOFxx, where xx corresponds to the format number

CONTENT: The contains the information necessary for the CS Gateway determine the time offset from the beginning of the frame for each FD. There will be one of these files for each format built.

Record No.	Item No.	Item Description	Type	Format	Size
1	1	Decimal Number of Format Information Table Records	integer	character	tbd
2	1	Time offset value (first FD)	float	character	8
3 - N	1	Time offset value (remaining FDs)	float	character	8

5.6.10 Consolidated System Network Configuration Table

FILE: CNC

CONTENT: The contains the information necessary for the CS Gateway determine the network addresses and specifics needed to communicate.

Record No.	Item No.	Item Description	Type	Format	Size
1	1	htdIpAddress	integer	character	tbd
2	1	htdDownlinkPort	integer	character	tbd
3	1	htdUplinkPort	integer	character	tbd
4	1	csdsIpAddress	integer	character	tbd
5	1	csdsRawDataPort	integer	character	tbd
6	1	csdsMergeDataPort	integer	character	tbd
7	1	htdTimeFDID (hexadecimal with preceeding 0X)	integer	character	8
8	1	htdTimeFDName	integer	character	10

5.6.11 Gateway Name File

FILE: gwname, Gateway Name File.

CONTENT: One record of information used to identify the Gateway. Each record is delimited by a newline character.

Record No.	Item No.	Item Description	Type	Format	Size
1	1	Gateway Name (e.g., "CSGW")	string	character	4

5.6.12 System Status Physical File

FILE: ss_phys

CONTENT: Multiple records of FDID's relating to the FDs used by subsystem integrity which are generated relating to the physical gateway. Each record contains the FD suffix (currently defined as the 6^{th} through 10^{th} characters of the FD Name) and the FDID's relating to all physical gateways of this type.

Record No.	Item No.	Item Description	Type	Format	Size
1	1	FD suffix	string	character	5
	2	Hexadecimal FDID (first physical address)	integer	character	8
	2-N	Hexadecimal remaining FDID's	integer	character	8
2	1	FD suffix	string	character	5
	2	Hexadecimal FDID (first physical address)	integer	character	8
	2-N	Hexadecimal remaining FDID's	integer	character	8
3-N	1	FD suffix (remaining physical FDs in the TCID)	string	character	5
	2	Hexadecimal FDID (first physical address)	integer	character	8
	2-N	Hexadecimal remaining FDID's	integer	character	8

5.6.13 System Status Logical File

FILE: ss_log

CONTENT: Multiple records of FD Names and FDID's used by subsystem integrity which are generated relating to the logical gateway. Each record contains the FD Name and the FDID for the logical System Status FDs in the TCID.

Record No.	Item No.	Item Description	Type	Format	Size
1-N	1	FD Name	string	character	10
	2	Hexadecimal FDID	integer	character	8

5.7 LOAD CONFIGURATION FILES

The Load Configuration Files provide information to support the load and configuration of the various CLCS platforms.

5.7.1 TCID Description Data File

FILE: desc.data, TCID Description File.

CONTENT: Information regarding the revision of a TCID and compatible SCID versions. The file consist of a single record. Each item is delimited by a blank.

Record No.	Item No.	Item Description	Type	Format	Size
1	1	TCID Name	string	character	20
	2	TCID Revision	integer	character	3
	3	TCID Build SW Version ID	string	character	8
	4	Control Room Type	string	character	25
	5	FD Directory Revision	integer	character	3
	6	FD Directory Rev Date & Time (dd-mon-yyyy hh:mm)	string	character	17
	7	Gateway Tables Revision	integer	character	3
	8	Gateway Tables Rev Date & Time (dd-mon-yyyy hh:mm)	string	character	17
	9	Install Revision	integer	character	3
	10	Install Rev Date & Time (dd-mon-yyyy hh:mm)	string	character	17
	11	Compatible SCID SW Version	string	character	72

5.7.2 Application Software Definition File

FILE: apps.data, Application Software Definition File.

CONTENT: Multiple records defining the TCID and Databank responsible systems and their associated application software files included in the TCID. Each record item is separated by a blank. Each record is delimited by a newline character.

Record No.	Item No.	Item Description	Type	Format	Size
1-N	1	TCID Responsible System Name	string	character	6
	2	Application Software File Name	string	character	128
	3	Application Software File Revision	string	character	15
	4	Application Software File Index Number	integer	character	6
	5	Application Software File Size	integer	character	8

5.7.3 Gateway Tables Definition File

FILE: gway.data, Gateway Tables Definition File.

CONTENT: Multiple records defining the Gateway processors and associated tables included in the TCID. Each record item is separated by a blank. Each record is delimited by a newline character.

Record No.	Item No.	Item Description	Type	Format	Size
1-N	1	Gateway Processor ID	string	character	4
	2	First Table Name (e.g., "cmdt")	string	character	8
	3	Second Table Name (e.g., "polling")	string	character	8
	4	Third Table Name (e.g., "eu")	string	character	8
	5	Fourth Table Name (e.g., "dm")	string	character	8
	6	Fifth Table Name (e.g., "ds")	string	character	8
	7	Sixth Table Name (="spare")	string	character	8
	8	Seventh Table Name (="spare")	string	character	8
	9	Eighth Table Name (="spare")	string	character	8
	10	Nineth Table Name (="spare")	string	character	8
	11	Tenth Table Name (="spare")	string	character	8

5.7.4 Responsible System List File

FILE: rsys.data, Responsible System List File.

CONTENT: Multiple records identifying the TCID Responsible Systems included in the TCID. Records are sorted in ascending TCID Responsible System Name order. Each item is delimited by a blank. Each record is delimited by a newline character.

Record No.	Item No.	Item Description	Type	Format	Size
1-N	1	TCID Responsible System	string	character	6